

**A MOLECULAR MANIPULATOR, A METHOD OF MAKING THE
SAME, AND A METHOD OF MOVING A NANOSTRUCTURE**

ABSTRACT

5 A molecular manipulator includes a light-sensitive molecule, including a double bond, which changes a *cis-trans* configuration of the double bond in response to illumination by light of a selected wavelength, and a probe, for example, a probe of a scanned-proximity probe microscope, to which the light-sensitive molecule is attached. A method of making the molecular manipulator includes covalently bonding the light-sensitive molecule to the probe.

10 A method of moving a nanostructure includes controllably grasping, moving, and releasing the nanostructure with the molecular manipulator.

15